WHAT IS CLAIMED IS:

1. A highly transparent and highly efficient organic light emitting device comprising, in sequence, an anode layer, a hole transporting layer, an electron transporting layer, and a cathode layer, wherein said cathode layer further comprises a metal-doped electron injection layer, and a transparent, non-metallic, electron injecting material in contact with said metal-doped electron injection layer, and wherein said metal-doped electron injection layer is a transparent material selected from the group consisting of a material which acts as a hole blocking layer, a material which acts as an exciton blocking material and a material which acts as a combination hole and exciton blocking material.

2. The transparent and efficient organic light emitting device as recited in claim 1, wherein said metal-doped electron injection layer also acts as an exciton blocking layer.

3. The transparent and efficient organic light emitting device as recited in claim 1, wherein said metal-doped electron injection layer also acts as a hole blocking layer.

4. The transparent and efficient organic light emitting device as recited in claim 1, wherein said metal-doped electron injection layer is doped with a metal selected from the group consisting of Li, Sr and Sm.

5. The transparent and efficient organic light emitting device as recited in claim 1, wherein said metal-doped electron injection layer is doped with Li.

6. The transparent and efficient organic light emitting device as recited in claim 2, wherein said metal-doped electron injection layer is doped with Li.

7. The transparent and efficient organic light emitting device as recited in claim 1, wherein said metal-doped electron injection layer is degenerately doped with Li.

8. The transparent and efficient organic light emitting device of claim 1, wherein said metal-doped electron injection layer comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

9. The transparent and efficient organic light emitting device of claim 5, wherein said metal-doped electron injection layer comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

10. The transparent and efficient organic light emitting device of claim 1, wherein said metal-doped electron injection layer has a metal atom density sufficient to produce an electronic density of at least about $10^{15}/cm^3$.

11. The transparent and efficient organic light emitting device of claim 1, wherein said metal-doped electron injection layer has a metal atom density sufficient to produce an electronic density of at least about $10^{21}/cm^3$.

12. The transparent and efficient organic light emitting device of claim 1, wherein said metal-doped electron injection layer has a metal atom density sufficient to produce a total external quantum efficiency of at least 1 % for said organic light emitting device.

13. The transparent and efficient organic light

emitting device of claim 1, wherein said hole transporting layer comprises 4,4-bis[N-(1-naphthyl)-N-phenyl-amino] biphenyl.

14. The transparent and efficient organic light emitting device of claim 1, wherein said electron transporting layer comprises tris-(8-hydroxyquinoline) aluminum.

15. The transparent and efficient organic light emitting device of claim 1, wherein said sequence includes an emissive layer between said hole transporting layer and said electron transporting layer.

16. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a vehicle.

17. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a computer.

18. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a television.

19. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a printer.

20. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a screen.

21. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic

light emitting device is incorporated in a billboard.

22. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a display.

23. The transparent and efficient organic light emitting device as recited in claim 1, wherein said organic light emitting device is incorporated in a telephone.

24. A recording device incorporating the transparent non-metallic cathode of claim 1.

25. A laser incorporating the transparent non-metallic cathode of claim 1.

26. A method for fabricating a highly transparent and highly efficient organic light emitting device comprising:

preparing, in sequence on a substrate, an anode, an organic hole transporting layer, an organic electron transporting layer, a transparent electron injection layer, and a transparent electron injecting layer, wherein said transparent electron injection layer is a material selected from the group consisting of a material which acts as a hole blocking layer, a material which acts as an exciton blocking material and a material which acts as a combination hole and exciton blocking material; and

wherein said preparing includes the step of doping said transparent electron injection layer with a metal to form a metal-doped transparent electron injection layer.

27. The method according to claim 26 wherein said transparent electron injection layer is doped with said metal by depositing an ultra-thin layer of said metal on said organic electron transporting layer prior to depositing said transparent electron injection layer.

28. The method according to claim 26 wherein said transparent electron injection layer is doped with said metal by depositing an ultra-thin layer of said metal on said transparent electron injection layer prior to depositing said transparent electron injecting layer.

29. The method according to claim 26 wherein said transparent electron injecting layer comprises ITO.

30. The method according to claim 27 wherein said ultra-thin layer of said metal has a thickness of 5-10 Å.

31. The method according to claim 27, wherein said metal comprises a metal selected from the group consisting of Li, Sr and Sm.

32. The method according to claim 27, wherein said metal comprises Li.

33. The method according to claim 26, wherein said metal-doped transparent electron injection layer comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

34. The method according to claim 26, wherein said metal-doped transparent electron injection layer has a metal atom density sufficient to produce an electronic density of at least about $10^{15}/cm^3$.

35. The method according to claim 26, wherein said metal-doped transparent electron injection layer has a metal atom density sufficient to produce an electronic density of at least about $10^{21}/cm^3$.

36. The method according to claim 26, wherein said metal-doped transparent electron injection layer has a metal atom density sufficient to produce a total external quantum efficiency of at least 1 % for said organic light emitting device.

37. The method according to claim 26, wherein said

hole transporting layer comprises 4,4-bis[N-(1-naphthyl)-N-phenyl-amino] biphenyl.

38. The method according to claim 26, wherein said electron transporting layer comprises tris-(8-hydroxyquinoline) aluminum.

39. A highly transparent and highly efficient cathode for use in an organic optoelectronic device comprising a transparent, non-metallic, electron injecting material in contact with a metal-doped electron injection layer, and wherein said metal-doped electron injection layer is a transparent material selected from the group consisting of a material which acts as a hole blocking layer, a material which acts as an exciton blocking material and a material which acts as a combination hole and exciton blocking material.

40. The highly transparent and highly efficient cathode as recited in claim 39, wherein said metal-doped electron injection layer is doped with a metal selected from the group consisting of Li, Sr and Sm.

41. The highly transparent and highly efficient cathode as recited in claim 39, wherein said metal-doped electron injection layer is doped with Li.

42. The highly transparent and highly efficient cathode as recited in claim 39, wherein said metal-doped electron injection layer comprises 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline.

43. The highly transparent and highly efficient cathode as recited in claim 39, wherein said metal-doped electron injection layer has a metal atom density sufficient to produce an electronic density of at least about $10^{15}/cm^3$.

44. The highly transparent and highly efficient cathode as recited in claim 39, wherein said metal-doped

electron injection layer has a metal atom density sufficient to produce an electronic density of at least about $10^{21}/cm^3$.

45. A highly transparent and highly efficient organic light emitting device comprising, in sequence,

an anode layer comprising ITO;

a hole transporting layer comprising 4,4-bis[N-(1-naphthyl)-N-phenyl-amino] biphenyl;

an electron transporting layer comprising tris-(8-hydroxyquinoline) aluminum; and

a cathode, further comprising a lithium-doped electron injection layer comprising 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline, and an ITO layer in contact with said lithium-doped electron injection layer.